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a first interface comprising a plurality of physical communication ports to transmit

- data to and receive data from a plurality of network devices;
- a first control unit communicatively coupled to the first interface to process at
- 5 least a first subset of the data;
- a second control unit communicatively coupled to the first interface and the first
- 7 control unit to process at least a second subset of the data;
- a second interface communicatively coupled between the first interface and the
- 9 first and second control units such that either one of the first and second control units
- may communicate with any of the plurality of network devices if the other of the first and
- 11 second contrøl units fails.
  - 2. The apparatus of claim 1, wherein the second interface comprises a plurality of
- 2 logical communication ports.

The apparatus of claim 2, wherein the first interface comprises two logical

- communication ports for each one of the plufality of physical communication ports.
- 1 4. The apparatus of claim 1, wherein each of the first and second control units
- 2 further comprises:
- a memory device to store one or more data transmission protocols; and

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- a processor coupled to the memory device to process network data based at least in part upon the one or more data transmission protocols.
- 1 5. The apparatus of claim 4, wherein the one of more data transmission protocols
- 2 includes OSPF.
- 1 6. The apparatus of claim 4, further comprising:
- a non-volatile memory device coupled t $\phi$  the first and second control units to
- 3 store configuration data for use by the first and second control units.
- 1 7. The apparatus of claim 6, wherein the apparatus comprises a chassis, and the
- 2 non-volatile memory device is embodied/within a first blade secured within the chassis
- 3 and at least one of the first and second/control units is embodied within a second blade
- 4 secured within the chassis.
- 1 8. The apparatus of claim 1, wherein the first and second interfaces are embodied
- 2 within an ASIC.
- 1 9. The apparatus of claim 1, wherein the first control unit is associated with a first
- 2 network address and the second control unit is associated with a second network
- 3 address.

- 1 10. The apparatus of claim 1, wherein the first and second control units each
- 2 independently maintain network status information.
- 1 11. The apparatus of claim 10, wherein the network status information is maintained
- 2 in a routing table.
- 1 12. A method comprising:
- 2 representing a plurality of physical data communication ports as a corresponding
- 3 plurality of logical data communications ports such that either one of a first control unit
- 4 and a second control unit communicatively  $\phi$  oupled to the physical data communication
- 5 ports can communicate with any of a plura ity of external devices communicatively
- 6 coupled to the physical data communicat/on ports if the other of the first and second
- 7 control units fails.
- 1 13. The method of claim 12, further comprising:
- 2 maintaining by the first contr $\phi$ l unit, first address data corresponding to the
- 3 plurality of external devices; and
- 4 maintaining by the second/control unit, second address data corresponding to
- 5 the plurality of external devices.
- 1 14. The method of claim 13/2 wherein the first control unit maintains the first address
- 2 data and the second control unit maintains the second address data each according to
- 3 at least one of a plurality of fouting protocols.

- 1 15. The method of claim 14, wherein the plurality of routing protocols include at least
- 2 one of OSPF, BGP, and EGP.
- 1 16. The method of claim 12, wherein the first control/unit may be identified by a first
- 2 network address and the second control unit may be identified by a second network
- 3 address.
- 1 17. The method of claim 16, wherein the second network address is derived from the
- 2 first network address.
- 1 18. A storage medium having stored thereon a plurality of executable instructions,
- 2 wherein when executed, operate to represent a plurality of physical data communication
- ports as a corresponding plurality of logical data communications ports such that either
- 4 one of a first control unit and a second control unit can communicate with any of a
- 5 plurality of external devices communicatively coupled to both the first and second
- 6 control units if the other of the first and second control units fails.
- 1 19. The storage medium of claim /18, further comprising instructions, wherein when
- 2 executed, operate to:
- maintain in association with the first control unit, first address data corresponding
- 4 to the plurality of external devices; and

- 5 maintain in association with the second control unit, second address data
- 6 corresponding to the plurality of external devices.
- 1 20. The storage medium of claim 19, further comprising instructions, wherein when
- 2 executed, operate to perform layer 2 and/ $\phi$ r layer 3 switching.